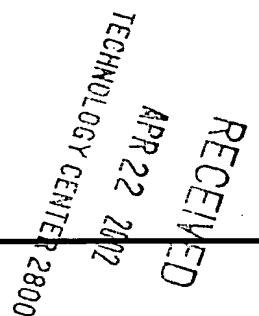
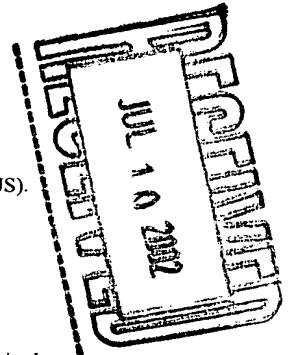
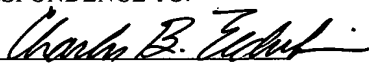
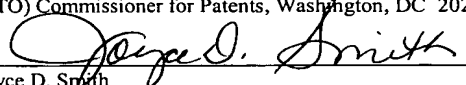


JC02 Rec'd PCT/PTO 0 8 APR 2002

FORM PTO-1390 (REV 10-2000)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371		ATTORNEY'S DOCKET NUMBER 34691/240549 U.S. APPLICATION NO. (If known, see 37 C.F.R. 1.5) 10:019,855	
INTERNATIONAL APPLICATION NO. PCT/DE00/01467	INTERNATIONAL FILING DATE May 11, 2000	PRIORITY DATE CLAIMED May 11, 1999	
TITLE OF INVENTION DEVICE FOR INVESTIGATING MATERIALS			
APPLICANT(S) FOR DO/EO/US Frank Rinn			
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:			
1. <input type="checkbox"/> This is a FIRST submission of items concerning a filing under 35 U.S.C. 371.			
2. <input checked="" type="checkbox"/> This is a SUBSEQUENT submission of items concerning a filing under 35 U.S.C. 371.			
3. <input type="checkbox"/> This is an express request to promptly begin national examination procedures (35 U.S.C. 371(f)).			
4. <input type="checkbox"/> The US has been elected by the expiration of 19 months from the priority date (PCT Article 31).			
5. <input type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2))			
a. <input type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau).			
b. <input type="checkbox"/> has been communicated by the International Bureau.			
c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).			
6. <input type="checkbox"/> A English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).			
7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))			
a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau).			
b. <input type="checkbox"/> have been communicated by the International Bureau.			
c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.			
d. <input type="checkbox"/> have not been made and will not be made.			
8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).			
9. <input type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).			
10. <input checked="" type="checkbox"/> An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).			
Items 11. To 16. Below concern other document(s) or information included:			
11. <input type="checkbox"/> An Information Disclosure Statement under 37 C.F.R. 1.97 and 1.98.			
12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.			
13. <input type="checkbox"/> A FIRST preliminary amendment.			
<input type="checkbox"/> A SUBSEQUENT preliminary amendment.			
14. <input type="checkbox"/> A substitute specification.			
15. <input type="checkbox"/> A change of power of attorney and/or address letter.			
16. <input type="checkbox"/> Other items or information:			



U.S. APPLICATION NO. (If known, see 37 C.F.R. 1.50) 10/019,855	INTERNATIONAL APPLICATION NO. PCT/DE00/01467	ATTORNEY'S SOCKET NUMBER 34691/240549
17. <input checked="" type="checkbox"/> The following fees are submitted:		CALCULATIONS
Basic National Fee (37 CFR 1.492(a)(1)-(5)): Neither international preliminary examination fee (37 CFR 1.482) nor International search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO		\$1,040.00
International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO		\$ 890.00
International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search (37CFR 1.445(a)(2)) paid to USPTO		\$ 740.00
International preliminary examination fee (37 CFR 1.482) paid to USPTO But all claims did not satisfy provisions of PCT Article 33(1)-(4)		\$ 710.00
International preliminary examination fee (37 CFR 1.482) paid to USPTO and all claims satisfied provisions of PCT Article 33(1)-(4)		\$ 100.00
ENTER APPROPRIATE BASIC FEE AMOUNT =		\$
Surcharge of \$130.00 for furnishing the oath or declaration later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(e)).		\$
CLAIMS	NUMBER FILED	NUMBER EXTRA
Total Claims	-20 =	X \$18.00
Independent Claims	- 3 =	X \$84.00
MULTIPLE DEPENDENT CLAIM(S) (if applicable)		+ \$280.00
TOTAL OF ABOVE CALCULATIONS =		\$
<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by one-half.		\$
SUBTOTAL =		\$
Processing fee of \$130.00 for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).		\$
TOTAL NATIONAL FEE =		\$
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property +		\$
TOTAL FEES ENCLOSED =		\$
		Amount to be Refunded
		Charged
a. <input type="checkbox"/> A check in the amount of \$ to cover the above fees is enclosed. b. <input type="checkbox"/> Please charge my Deposit Account No. 16-0605 in the amount of \$ to cover the above fees. A duplicate copy of this sheet is enclosed. c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 16-0605.		
Note: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137 (a) or (b)) must be filed and granted to restore the application to pending status.		
SEND ALL CORRESPONDENCE TO: Charles B. Elderkin  SIGNATURE REGISTRATION NUMBER 24,357 ALSTON & BIRD LLP Bank of America Plaza 101 South Tryon Street, Suite 4000 Charlotte, NC 28280-4000 Tel Charlotte Office (704) 444-1000 Fax Charlotte Office (704) 444-1111 Customer Number 00826		"Express Mail" Mailing Label Number EL 910632015 US Date of Deposit: April 8, 2002 I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to BOX PCT, Attn: DO/US (PTO) Commissioner for Patents, Washington, DC 20231.  Joyce D. Smith

#4528408v1

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 5444/I/001	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/DE00/01467	International filing date (day/month/year) 11 May 2000 (11.05.00)	Priority date (day/month/year) 11 May 1999 (11.05.99)
International Patent Classification (IPC) or national classification and IPC G01N 33/00		
Applicant RINN, Frank		

- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 5 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

 These annexes consist of a total of 4 sheets.

- This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand 09 December 2000 (09.12.00)	Date of completion of this report 31 July 2001 (31.07.2001)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/DE00/01467

I. Basis of the report

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
pages 1-16, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☒ the claims:
pages _____, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages 1-28, filed with the letter of 20 June 2001 (20.06.2001)
- ☒ the drawings:
pages 1/2,2/2, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	1-28	YES
	Claims		NO
Inventive step (IS)	Claims	1-28	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-28	YES
	Claims		NO

2. Citations and explanations**1. Reference is made to the following documents:**

D1: US-A-5 621 172

D2: US-A-4 926 691

2. The subject matter of independent Claim 1 (and of dependent Claims 2-28) can be considered novel and inventive (PCT Article 33(2) and (3)) for the following reasons:

Document D1, which is considered to be the closest prior art, discloses a device for inspecting wooden objects, comprising a wave generator ("driver") and a plurality of wave receivers. The wave receivers are sensors which measure either the intensity ("force sensor") or the frequency ("accelerometer") of the waves propagated through the object. Each sensor is connected to a device for digital-to-analog conversion of the sensor signal (analysis electronics). Each D/A converter has a filter for discriminating signals and measuring errors (see column 2, lines 20-67; column 3, lines 1-57; column 5, lines 30-61; column 8, lines 4-67; column 9, lines 5-55; Figure 2).

The subject matter of Claim 1 of the present application differs in that the analysis electronics are either immediately adjacent to or integrated in the sensor.

This arrangement enables pulse discrimination to be effected at the sensor with minimal communication paths (and hence minimal electromagnetic interference). A plurality of sensors can be disposed at large intervals, any yet reliable discrimination of pulses is still possible.

In the device described in D1 the sensors are connected to the A/D converters and the central computer via transmission wires.

Document D2 discloses a similar device for inspecting wooden objects, comprising a wave generator ("hammer") and a wave receiver. The receiver is connected to an A/D converter and to a central computer via transmission wires. D2 does not specify whether the device has means for discriminating genuine signals from interference signals (column 2, lines 7-43; column 3, lines 50-67; column 4, lines 1-20; Figure 3).

There is no technical basis in the disclosures of D1 and D2 that might prompt a person skilled in the art to modify the device known from D1 in such a way as to arrive at a device according to Claim 1.

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

Contrary to the requirements of PCT Rule 5.1(a)(ii), the description does not cite documents D1 and D2 or indicate the relevant prior art disclosed therein.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/DE 00/01467

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

The description has not been made consistent with the claims (PCT Article 6 and PCT Examination Guidelines, Chapter III-4.3).